Union County Board of Supervisors

HYDROSTATICALLY DRIVEN 4 WHEEL DRIVE CHIPSPREADER
GENERAL: It is the intent of this specification to describe a Hydrostatically Driven, Self-Propelled Chipspreader. Materials listed shall be the least minimum standard as specified and of a quality used commercially, conforming to current engineering and manufacturing practices. The Chipspreader shall be a current model under standard production by the manufacturer, with not less then two years of production and field use. The Hydrostatically Drive Chipspreader shall have the capability, while operating, to tow a 56,000 pound GVW loaded dump truck up at least an 18% grade. Successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing the equipment within 100 miles of the purchaser's main equipment yard.

Maximum loaded gradeability : 18% grade_____

Location of nearest servicing dealer : 100 miles_____

NOTE: For evaluation purposes, any line item left blank will be considered as non-responsive and will cause the bid to be rejected due to our inability to do a fair evaluation without the requested information. The "required data" spaces are critical. The information in these areas are required to evaluate and confirm compliance. Therefore, all requested information must be entered in the space provided. Failure to provide any requested information will cause the bid to be rejected as non-responsive.

FUNCTION COMPLIES (Yes/No)
The self-propelled 4 Wheel Drive Chipspreader shall be designed and constructed to supply a uniformly distributed application of cover and seal coat aggregates over a width ranging from 10 ft. to 20 ft. in increments. The overall length shall be not more then 25 ft. 6 in. and transport width of less than 11 feet.

POWER TRAIN ENGINE
Shall have a 6 cylinder turbo-charged diesel engine with a minimum rating of 260 horsepower and to include electric start, alternator, voltage regulator and 1400 cca 12 volt batteries. Engine shall have dry type air cleaner, disposable element type oil filter, heavy-duty cooling , electric throttle actuator, hydraulic reversing fan. Engine shall have high water temperature / low oil pressure warning system and meet all E.P.A. Tier III requirements. Fuel capacity approximately 82 gallons and hydraulic lockable cap. _____

4-WHEEL HYDROSTATIC DRIVE
Four wheel hydrostatic drive providing infinitely variable forward and reverse speeds from 0 to no less than 19 mph. The front and rear drives shall be driven by 160 cc variable displacement hydraulic motors through a differential and planetary drive wheel ends. Total wheelbase shall be not more than 135 inches.
_____

TRANSMISSION
Electronically controlled variable hydrostatic 125 cc pump driven by direct engine bell housing mount, electronically controlled variable hydrostatic motors directly coupled to the front and rear axles. Infinite working speed range 0 to 19 M.P.H. Engine fan cooled oil cooler with total return flow capacity. Hydraulic reservoir minimum capacity to be 95 gallons.
_____

TIRES & WHEELS
4 each 385/65R22.5-G tubeless, radial, wide base tires mounted on heavy duty steel disc wheels.
_____

OPERATORS STATION
One control console station which can be manually moved from side to side for total operational control from either side of the chipspreader. Joystick to control forward/reverse and rate of speed. Instruments

panel shall have digital display for application rate, product size, speed, oil pressure, coolant temperature, battery voltage, hydraulic oil temperature, percent of fuel remaining, engine hours and engine RPM's. All engine and hydraulic alarm system with lights and buzzer shall be included. Shall include a lockable control panel cover for vandal protection and one adjustable suspension seat with armrests and mounted umbrella. Speed adjustments for conveyor and auger functions. _____

STEERING
Full hydrostatic power steering from 1.22 cc fixed displacement gear pump, with dedicated flow independent of engine speed. Turning radius shall be approximately 17 feet. _____

CONVEYORS
Must have two independently activated conveyors with 24 inch wide belts. Each powered by a load sensing 74 cc variable displacement pressure compensated hydraulic pump and a high torque 19.0 C.I.R. hydraulic motor, with direct drive to the head pulley. Electric switches for each conveyor control to have easy access mechanical override. Hooded, aggregate deflectors to be located at the head of each conveyor. 24 degree troughing idlers are to be of quick removable type and the tail pulley to be adjustable for insuring proper belt alignment. Each belt to have automatic on/off controls to control aggregate level in the spread hopper. There shall be an override control to enable the operator to manually start or stop the conveyors as needed. _____

VARIABLE WIDTH SPREAD HOPPER
Shall be 11 feet to 22 feet variable width, two section hopper system. Hoppers shall be capable of varying the spreading width on the run. No bolt-on sections excepted. Each hopper shall include hydraulic driven augers and spread rollers. Spread rolls to be no less than 6" in diameter and constructed of heavy wall tubing. Spread rolls shall be hydraulically driven and actuated by power gate opening control. The hydraulic system to have all pumps, hoses, valves, cylinders and controls to operate system. Operating controls shall be capable of being located at both the driver and front co-operator stations. The hoppers shall have expandable metal in the top of each hopper with replacement grates under the conveyor hoods. Also to include, individual electric / air controlled one foot gates, to allow aggregate spreading in one foot increments across the variable width hopper by individual gate controls which can be open/close from the operator's station. Electric Vibrator shall be provided for variable width hopper. _____

BRAKES
Mechanical axles front and rear having hydraulic internal drum brakes controlled by pressing down on the foot pedal actuator. Also to include a spring applied, hydraulic release fail safe parking brake in the driveline that automatically applies if hydraulic or electrical power is lost. _____

TRUCK HITCH
This unit shall be equipped with a positive, self-locking "railroad" type adjustable truck hitch, which can be electrically released from the drivers or front operators positions. Hitch height to be electrically controlled from the drivers position. Adjustment range 8" to 20" in height and 4" fore and aft. _____

APPLICATION RATE COMPUTER
The Application Rate Computer shall monitor the actual speed of the Chipspreader, and varies gate opening in order to maintain the set application rate in lbs/yd, of the selected aggregate, regardless of the speed of the unit. The computer shall be able to store five different aggregate / application rate setting in it's memory. The application rate should be able to vary as desired while operating or to select a different pre-set combination at any time. _____

RECEIVING HOPPER
Hopper shall be a minimum of 132 inches wide with a capacity of approximately 4 cubic yards. Hopper to have hydraulically folding paver style wings controlled from the operator's station. Shall include heavy duty hopper skirting and an adjustable flow gate for each conveyer belt. _____

MISCELLANEOUS

This unit is to have headlights, LED stop and tail lights and turn signals with flashers switch, four corner stobe safety lights. Unit also to have front fender on each side. An electric horn and electric back-up warning alarm is to be furnished. Must include an engine warning system. The paint is to be standard highway yellow. The unit to have one full length walkway with skid resistant surface adjacent to one side of the conveyor system. A steel lockable toolbox shall be mounted under the main deck. One set of Parts and Operators Manuals. Warranty for a period of 12 months from the date placed in service. _____